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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

ART UNIT	PAPER NUMBER
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DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/516,052

Applicant(s)

HARADA ET AL.

Examiner

Cynthia Collins

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1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 01 March 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) 1-69 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 8 is objected to because it should depend on claim 7, rather than on claim 6.
2. Claim 54 is objected to because the word "embryonic" is misspelled.
3. Claim 55 is objected to because the claim does not end with a period.
4. The inclusion of claim 8 in Group IV and of claims 54-55 in Group I is in the interest of compact prosecution, and does not relieve the Applicants of their responsibility to respond to these objections. Appropriate correction is required.

Election/Restrictions

5. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-3, 9, 21-22, 28-29, 35-36, 39, 42-43, 46-49, 54-55, 58, 63, and 69, drawn to an expression cassette, an isolated nucleic acid, a host cell, a method of introducing an isolated nucleic acid into a host cell, a method of modulating transcription, and a transgenic plant or plant cell, each comprising a heterologous polynucleotide sequence encoding a LEC1 polypeptide of SEQ ID NO:2, classified in class 435, subclass 320.1, for example.
 - II. Claims 4-5, 23-24, 50-51, and 59-60, drawn to an expression cassette, an isolated nucleic acid, a method of modulating transcription, and a transgenic plant or plant cell, each comprising a heterologous polynucleotide sequence encoding a LEC1 polypeptide of SEQ ID NO:20, and, classified in class 800, subclass 278, for example.

- III. Claims 6, 16, and 25, drawn to an expression cassette and an isolated nucleic acid, each comprising a heterologous polynucleotide sequence encoding a fusion between two or more LEC1 polypeptides or polypeptide subsequences, classified in class 536, subclass 23.4, for example.
- IV. Claims 7-8, 26-27, 52-53, and 61-62, drawn to an expression cassette, an isolated nucleic acid, a method of modulating transcription, and a transgenic plant or plant cell, each comprising a heterologous polynucleotide sequence encoding a LEC1 polypeptide of SEQ ID NO:22, classified in class 435, subclass 419, for example.
- V. Claims 10-13, 17-20, 30-33, 35, 38, 42, 45, 64, and 66-68, drawn to an expression cassette and an isolated nucleic acid, each comprising an *Arabidopsis* LEC1 gene promoter, classified in class 536, subclass 24.1, for example.
- VI. Claims 14, 34, and 65, drawn to an expression cassette, an isolated nucleic acid, and a transgenic plant or plant cell, each comprising a heterologous polynucleotide sequence encoding a LEC1 polypeptide of SEQ ID NO:2 that is linked to the promoter in an antisense orientation, classified in class 536, subclass 24.5, for example.
- VII. Claims 15, 35, 37, 42, and 44, drawn to an expression cassette, a host cell, and a method of introducing an isolated nucleic acid into a host cell, each comprising a heterologous polynucleotide sequence encoding a LEC1 polypeptide comprising a subsequence at least 90% identical to the A or C domain of a LEC1 polypeptide, classified in class 435, subclass 468, for example.

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- VIII. Claim 40, drawn to an isolated polypeptide, classified in class 530, subclass 370, for example.
 - IX. Claim 41, drawn to an antibody, classified in class 530, subclass 387.1, for example.
 - X. Claims 56-57, drawn to a method of detecting a nucleic acid in a sample, classified in class 435, subclass 6, for example.
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- 6. Claims 35 and 42 will be examined to the extent that they read on the elected invention.
 - 7. Inventions I-X are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation, different functions, or different effects.
 - 8. The inventions are distinct, each from the other because of the following reasons:
 - 9. The inventions of Groups I-X are distinct products. The expression cassettes, isolated nucleic acids, host cells, transgenic plants and plant cells of Groups I-VII and X each comprise structurally and functionally distinct polynucleotide sequences, and can be used in different methods. Furthermore, the methods of plant transformation and regeneration required by inventions I-VII are not required by any other group. The isolated polypeptide and antibody of Groups VIII and IX are structurally and functionally distinct from each other, as well as from the polynucleotide sequences of Groups I-VII and X, and can be used in different methods.
 - 10. The inventions of Groups I-VII and X are also distinct methods. The methods of introducing an isolated nucleic acid into a host cell and of modulating transcription of Groups I-

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VII each comprise the use of structurally and functionally distinct polynucleotide sequences comprising distinct coding regions or promoters, each not required by the other, and thus result in the production of structurally and functionally distinct products. The method of detecting a nucleic acid in a sample of Group X requires different method steps and components than the methods of Groups I-VII, and produces results different from the phenotypic alteration results of the methods of Groups I-VII.

11. Thus the inventions of Groups I-X are each capable of being separately made, independently used and the patentability of one would not render the other obvious or unpatentable.

12. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, their recognized divergent subject matter, and the requirement for different areas of search, restriction for examination purposes as indicated is proper.

13. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

14. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Collins whose telephone number is (703) 605-1210.

The examiner can normally be reached on Monday-Friday 8:45 AM -5:15 PM.

16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Hutzell can be reached on (703) 308-4310. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and 1 for After Final communications.

17. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

CC

August 14, 2001

DAVID T. FOX
PRIMARY EXAMINER
GROUP ~~180~~ 1638

David T. Fox